STEP-BY-STEP GUIDE FOR INTERACTIVE MAPPING

Aloha! Welcome to the Hawaii Reapportionment Commission's Interactive Mapping web site. This site has been set up for the public to get more detailed information about the proposed Congressional, State Senate and State House redistricting plans. With this site you can:

- See the proposed legislative districts for the entire state, for an island or for a specific street.
- Find a street and see a detailed map of that area.
- See Federal and State base population data for every census block.
- Pan and zoom to any area on any island.
- Create a map for printing

You will find more information about redistricting in Hawaii and about the proposed plans on our main web page:

> http://www.hawaiiredistricting.org

This step-by-step guide will start by describing some of the frames and buttons you need to use for interactive mapping. It will then take you step-by-step through a typical session to find a street and print a map. It will finish by describing the other buttons not used in the step-by-step exercise.

LINK TO INTERACTIVE DISTRICT MAPPING

Follow the link from the Reapportionment home page to Interactive District Mapping. This link will take you to an introductory page where you can download this Step-By-Step Guide. From this introductory page, click the Interactive District Mapping link again and you will see a statewide map and several frames and buttons. These will be described in general on the next page and in more detail through the rest of this guide.

If you are using a low-speed phone line to access the internet, you will notice that it takes a while for the map to draw. Be patient and it will eventually finish. Please do not click any buttons or anywhere on the map while the map is redrawing. If you do, you will see an error message that says "Response from previous request(s) not received". Just click the "OK" button and the mapping will continue.
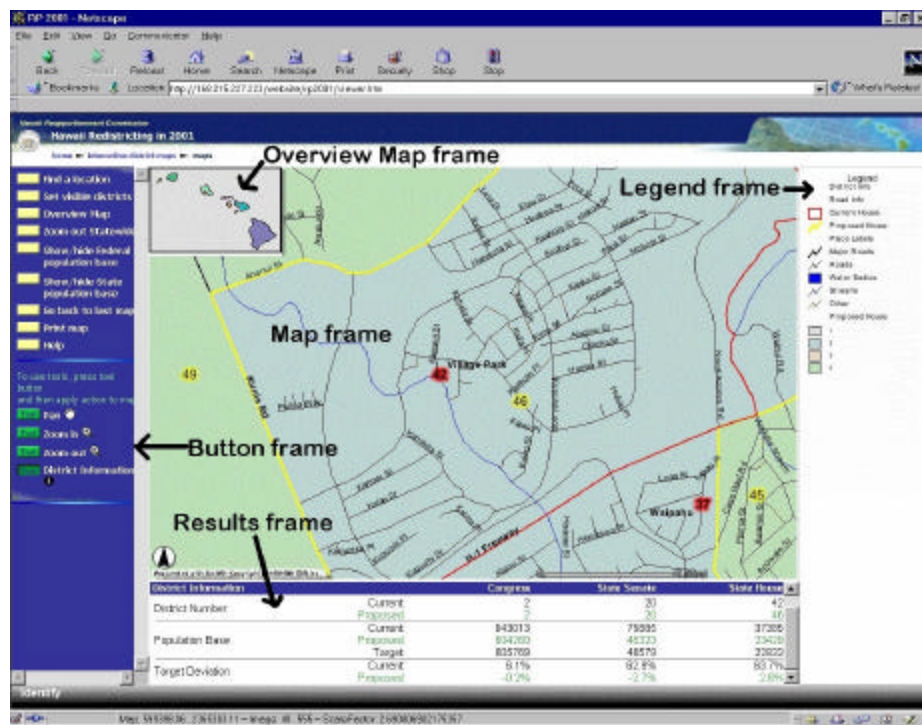
When you're ready, go ahead and proceed to Interactive District Mapping. Refer to the next page to learn what all the parts of the screen are. Then proceed to the step-by-step exercise.

Click this link on your internet browser and proceed to the next page:

FRAMES AND BUTTONS

FRAMES

Map Frame: The center part of the screen. Contains the interactive map.
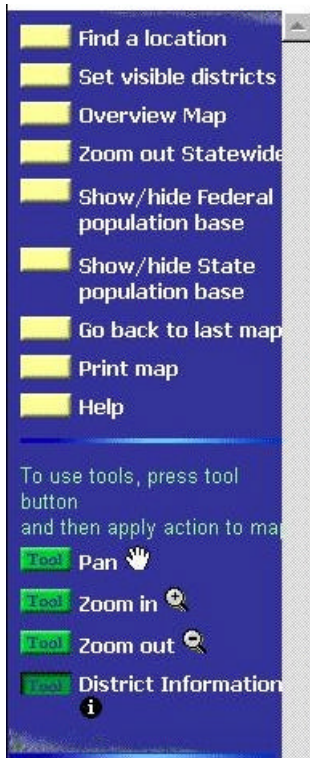
Button Frame: On the left of the screen. Contains action buttons and tool buttons.

Results Frame: On the bottom of the screen. Contains the results from the "Find a location" action button or the "District Information" tool button.

Legend Frame: On the right of the screen. Contains the map legend.

Overview Map Frame: On the upper left. Contains a map of Hawaii showing the current Map Frame area.

BUTTON FRAME

Action Buttons:

The Action Buttons are shown as yellow buttons. When you click on one of these buttons, something will always happen.

The "Find a location" button and the "Set visible districts" button will temporarily replace the Button Frame with a custom frame.

The "Print a map" button opens a new window with a map of the current area in a format suitable for printing.

The "Help" button gives you this information.

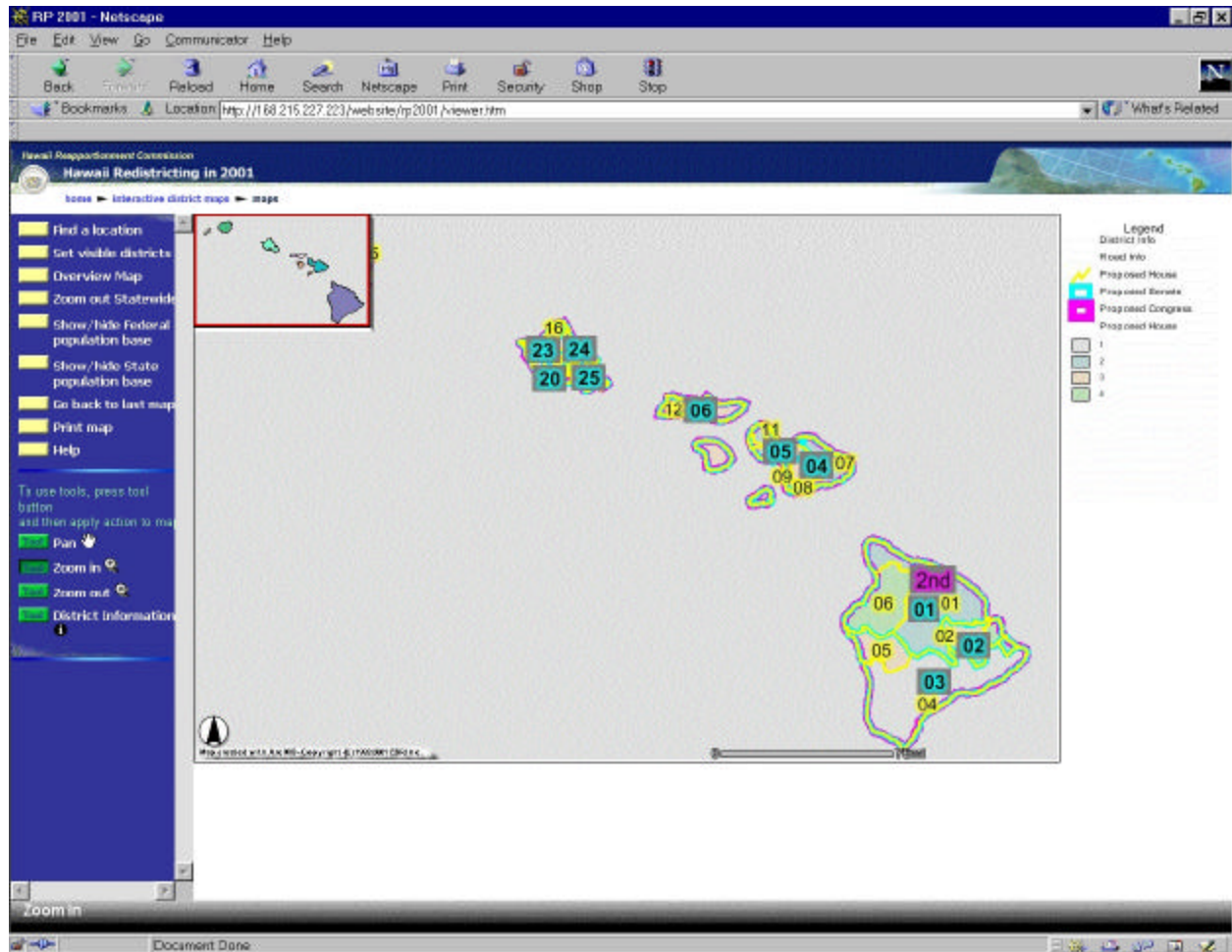The rest of the Action Buttons change something about the map.

Tool Buttons:

The Tool Buttons are shown as green buttons. When you click on one of these buttons, nothing seems to happen (except that the green button gets darker, indicating that this is your current tool). These Tool Buttons set what happens when you click and drag inside the Map Frame.

For example, the current tool set is the "District Information" tool. If you were to click on a place in the Map Frame, the Results Frame would then show you information about the current and proposed districts at that place.

If you do not see the full frame contents, you may need to use the scroll bar to scroll down in the frame window.

STEP-BY-STEP EXERCISE

Your screen should look similar to the example above. Depending on the resolution of your screen, you may not see all of the buttons in the Button Frame. If you cannot see the "District Information" button, then you should have a scroll bar to the right side of the Button Frame and can scroll down if you need to.

Proposed Congressional districts are shown outlined in magenta (pink) with the district number also outlined with magenta.

Proposed State Senate districts are shown outlined in cyan (light blue) with the district number also outlined with cyan.

Proposed State House districts are shown outlined in yellow with the district number also outlined with yellow.

As you zoom into the map in greater detail, more information will appear on the maps. At this scale there are only district numbers and boundaries.

One of the ways to zoom into an area for more detail is to use the "Find a location" button.

<u>**"Find a location" Action Button (yellow)**</u>

Let's start by finding a location using the "Find a location" button. With this button you can find a specific island, street, or current legislative district. We're going to start out by finding the islands in Maui County.

Click the yellow "Find a location" button.

You will see a new form in the Button Frame. This is the "Find a location" form. You can use it to:

	Find an island by county
	Find a street
	Find a current state senate district
	Find a current state house district

We want to find the islands in Maui County so:

1) *Click the circle to the left of Maui*

2) *Click the Find button at the bottom of the form (note: you may have to scroll down to see the Find button).*

After clicking the Find button, the original Button Frame buttons will return and a list of islands will show up in the Results Frame, as shown on the next page.

Zoom to an island listed in the Results Frame

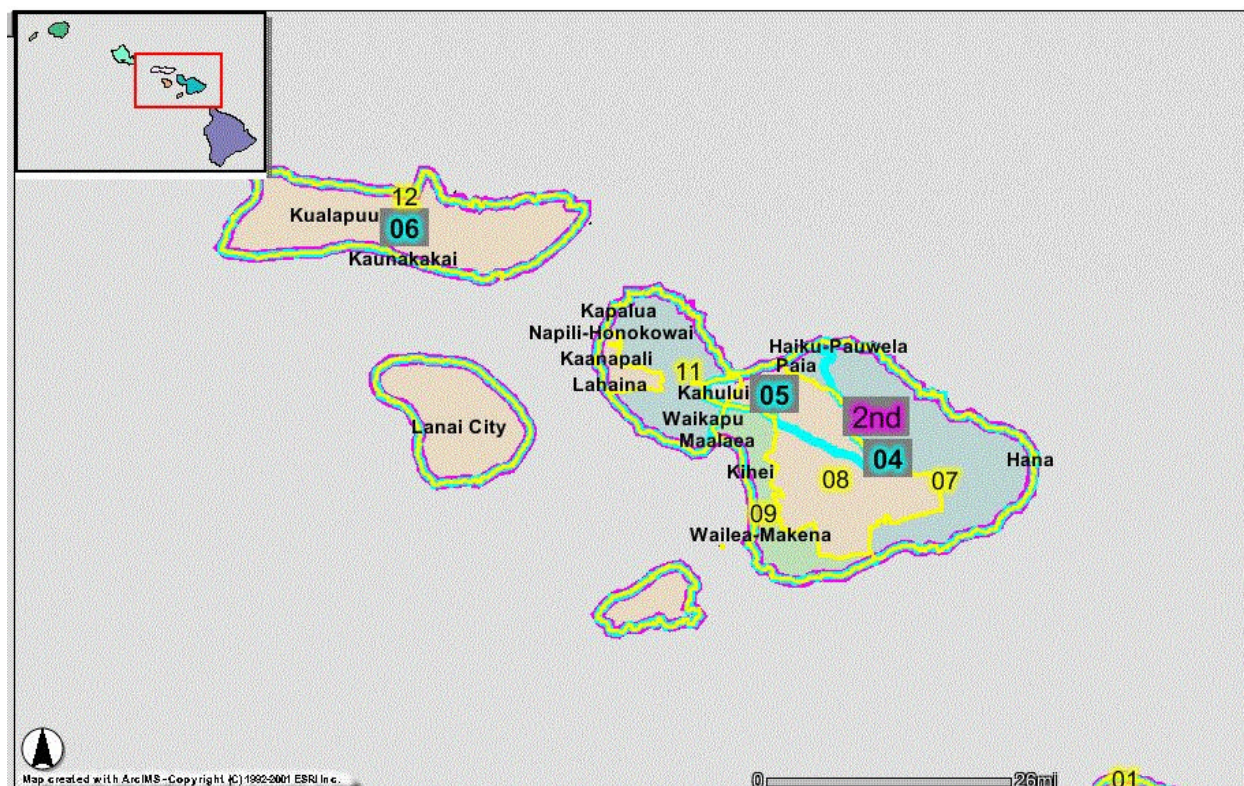The Results Frame will contain a list of islands like this:

			Land	
Rec	Island	County	#SHAPE#	#ID#
1	Molokai	Maui	[polygon]	7
2	Lanai	Maui	[polygon]	8
3	Kahoolawe	Maui	[polygon]	9
4	Maui	Maui	[polygon]	10
5	Molokini	Maui	[polygon]	11
			Zoom to these records	

Notice that the left column (Rec) is a list of record numbers, each one in blue and underlined. These are links to each separate island. The blue link at the bottom (scroll down in the Results Frame if you don't see it) will zoom the map to show all the records. Let's try it now.

			Land	
Rec	Island	County	#SHAPE#	#ID#
1	Molokai	Maui	[polygon]	7
2	Lanai	Maui	**1** [polygon]	8
3	Kahoolawe	Maui	[polygon]	9
4	Maui	Maui	[polygon]	10
5	Molokini	Maui	[polygon]	11
			Zoom to these records	

1) Click the blue underlined "Zoom to these records" link

The Map Frame will change (zoom) to show all the islands in Maui County. Notice that the Overview Map Frame has also changed to show the Map Frame area outlined in red.

Now let's try again and zoom only to the island of Molokai.

Land				
Rec	Island	County	#SHAPE#	#ID#
1	Molokai	Maui	[polygon]	7
2	Lanai	Maui	[polygon]	8
3	Kahoolawe	Maui	[polygon]	9
4	Maui	Maui	[polygon]	10
5	Molokini	Maui	[polygon]	11
		Zoom to these records		

1) *Click on the blue underlined "1" in the Rec column to the left of Molokai*

You will see the Map Frame zoom to Molokai. Try other islands if you wish.

Find a street and zoom to it

Now we're going to find a street and zoom to it. The process is similar to what we did for an island. Let's find Mokuola Street in Waipahu.

Click the yellow "Find a location" button.

1) *Click the circle left of Honolulu (since the street we are looking for is on Oahu – City and County of Honolulu).*

2) *Click the circle left of Street (since we want to find a street).*

3) *Fill in the box to the right of Street with the first part of the street name, in this case type Moku. Make sure to capitalize the M and make the rest lower case (small) letters.*

By only typing the first few letters of the street name, you save on typing and you avoid misspellings. Later you'll see a list of all street names that start with "Moku" and you can select the one you want by clicking on it.

These street names come from the U.S. Census Bureau and do not contain kahako (macrons) or okina (glottal stops). Therefore you should not type them as part of your street name. Just leave them out. For instance, Maka`a St. should be entered as just Makaa, no okina.

4) *Click the Find button.*

After clicking the Find button, the original Button Frame buttons will return and a list of streets that start with "Moku" will show up in the Results Frame, as shown on the next page.

Zoom to a street listed in the Results Frame

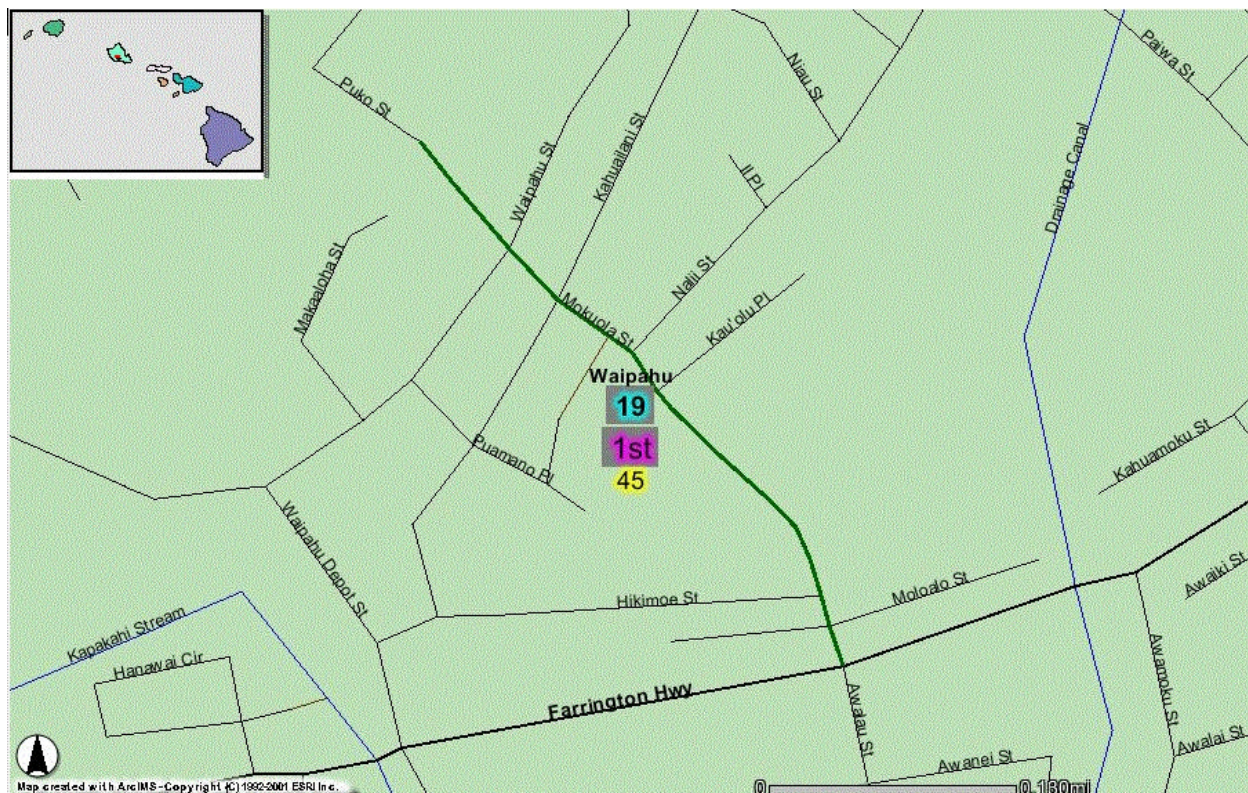The Results Frame will contain a list of streets like this:

10	Mokulua Dr	Honolulu	[line]	10065
11	Mokumanu Dr	Honolulu	[line]	10067
12	Mokumoa St	Honolulu	[line]	10068
13	Mokuna Pl	Honolulu	[line]	10069
14	Mokunoio Pl	Honolulu	[line]	10072
15	Mokuola St	Honolulu	[line]	10073
16	Mokuone St	Honolulu	[line]	10074
17	Mokupea Pl	Honolulu	[line]	10078
		Zoom to these records		

Scroll through the list of names in the Results Frame and towards the bottom you will see that record 15 is Mokuola St. You can zoom to this street just like you did for an island.

1) Click on the blue underlined "15" in the Rec column to the left of Mokuola St.

You will see the Map Frame zoom to Mokuola Street in Waipahu.

You can see from the district numbers that this entire area is in:

The 1st Congressional district (magenta outline)
State Senate district 19 (cyan outline)
State House district 45 (yellow outline)

Notice that you now can see other streets and street names in the area.

Click the yellow "Overview Map" button to turn off the Overview Map Frame.

Get detailed information about the current and proposed districts.

You can use the green "District Information" Tool Button to set the current tool to District Information.

1) Click the green tool for "District Information".

The tool becomes dark green but otherwise you won't see anything happen until you click on a spot in the Map Frame.

Click on a spot in the Map Frame. Try to click on the spot at the intersection of Mokuola Street and Nalii Street, right near the center of the map.

The Results Frame will now show detailed information about the legislative districts at that spot.

District Information		Congress	State Senate	State House
District Number	Current	2	19	36
	Proposed	1	19	45
Population Base	Current	643013	53331	24419
	Proposed	607277	46591	22636
	Target	605769	46579	22833
Target Deviation	Current	6.1%	14.5%	6.9%
	Proposed	0.2%	0%	-0.9%

Before we only knew the proposed district numbers 1, 19 and 35. Now we can see both the current and proposed district numbers, the populations in both the current and proposed districts (including the target population), and the deviation of those populations from the ideal target population.

In this case, we can see that for the current and proposed Congressional districts, that the population deviation which had been 6.1% in the current 1st district, has been reduced to only 0.2% in the proposed 2nd district which this location is part of.

We can also see that the State Senate deviation has been reduced from 14.5% to 0.0% and that the State House deviation has been reduced from 6.9% to –0.9%.

In this area, the population grew faster than the state average, so all the deviations for current districts were positive. Current districts in this area had to be reduced in size to meet the statewide target deviation of +/- 5%.

Right now the map only shows the proposed district boundaries. You can set the map to show both current and proposed boundaries for any given legislative body. Let's look at the current and proposed State House boundaries.

Set which district boundaries will be visible

Click the yellow "Set visible districts" button.

You will see a new form in the Button Frame. This is the "Set Visible Districts" form. You can use it to:

Show proposed Congressional, Senate and House boundaries. This is the default that you have seen up to this point.

Show current Congressional, Senate and House boundaries.

Show current and proposed Congressional boundaries.

Show current and proposed State Senate boundaries.

Show current and proposed State House boundaries.
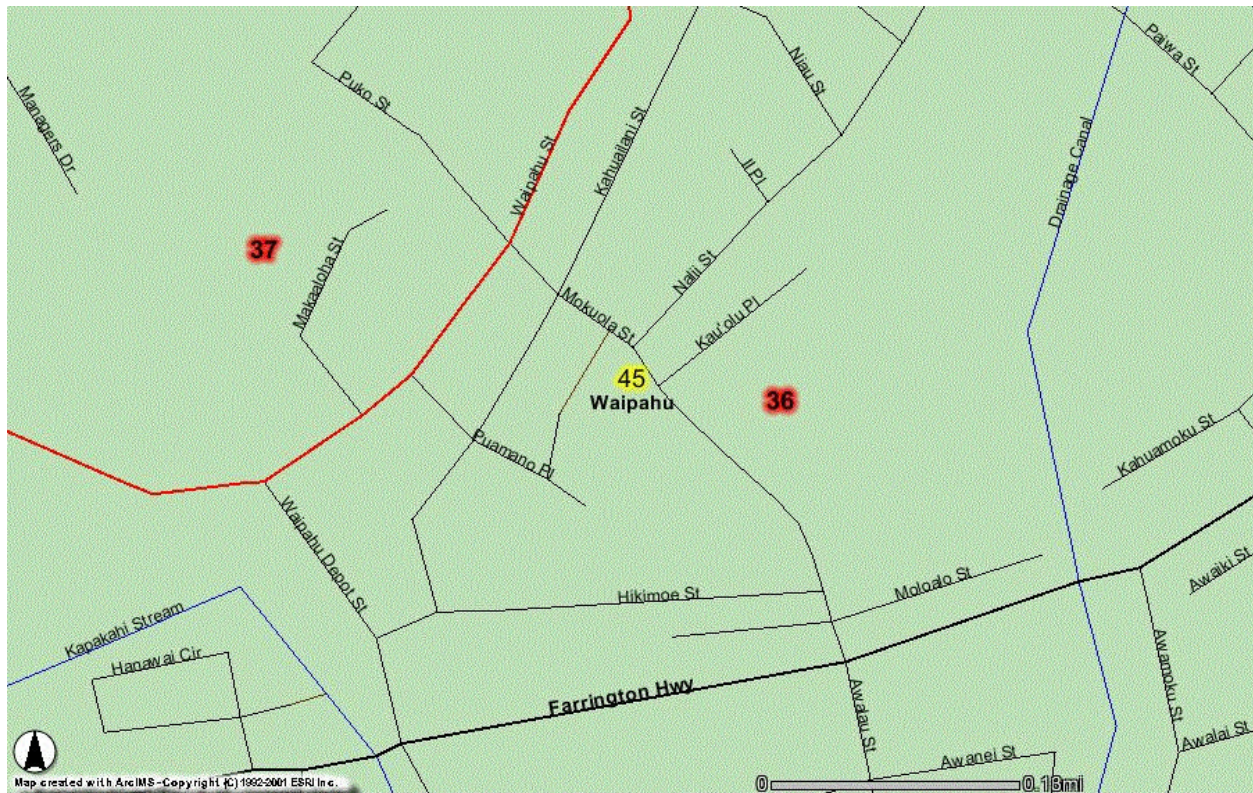
Scroll down if you need to and:

1) Click the circle left of Option 5

2) Click the Refresh Map button

After clicking the Refresh Map button, the original Button Frame buttons will return and the Map Frame will redraw as shown on the next page.
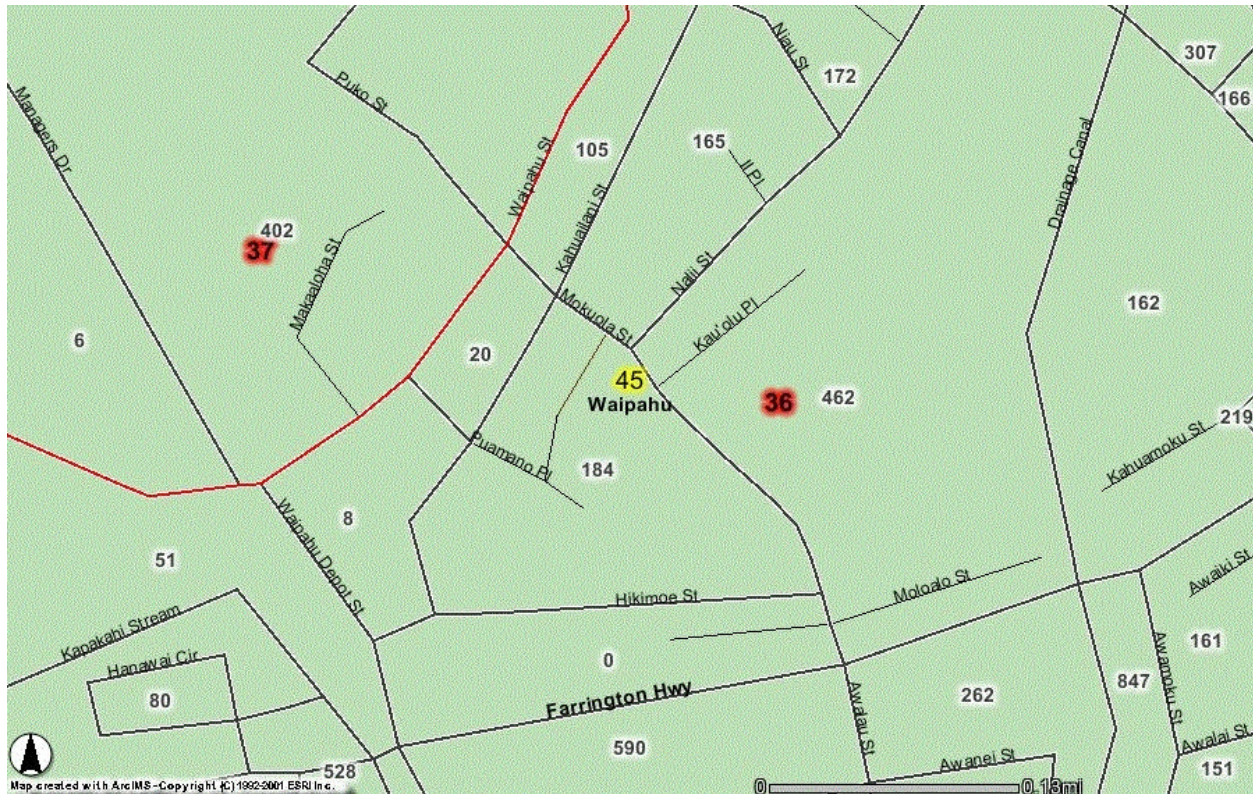
Here is the same area shown before, but only the current and proposed State House district boundaries are shown. The current boundaries are shown in red and the proposed in yellow.

Notice that the current State House district boundary between districts 36 and 37 follows Waipahu Street along the red line. The entire area is in proposed district 45 so no yellow lines (proposed district boundaries) are seen.

Click the yellow "Show/Hide State population base" button. This will show the State population base for every census block on the map.

Click the green "Zoom out" tool button and then click once in the center of the Map Frame.
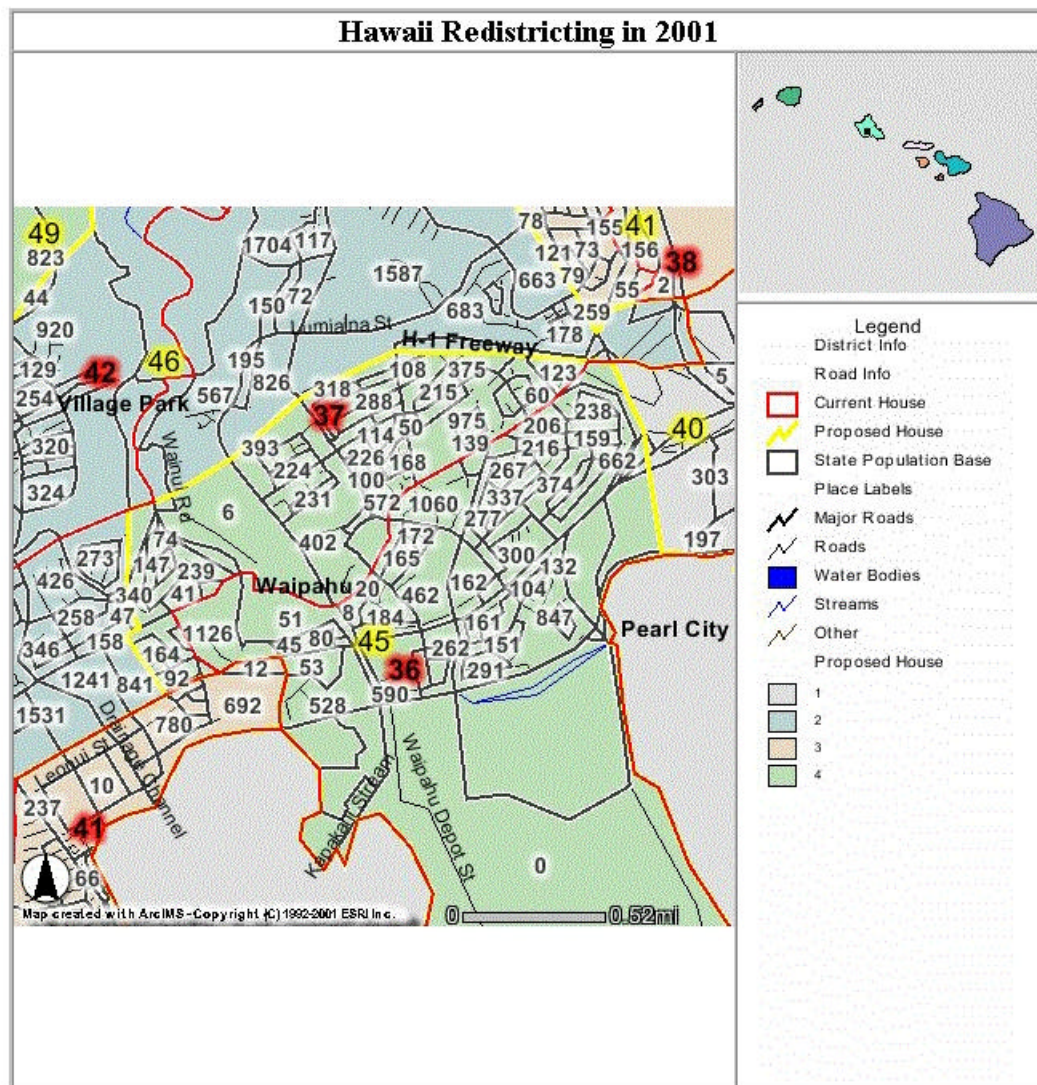
You now see a larger area.

Click once more in the center of the Map Frame.
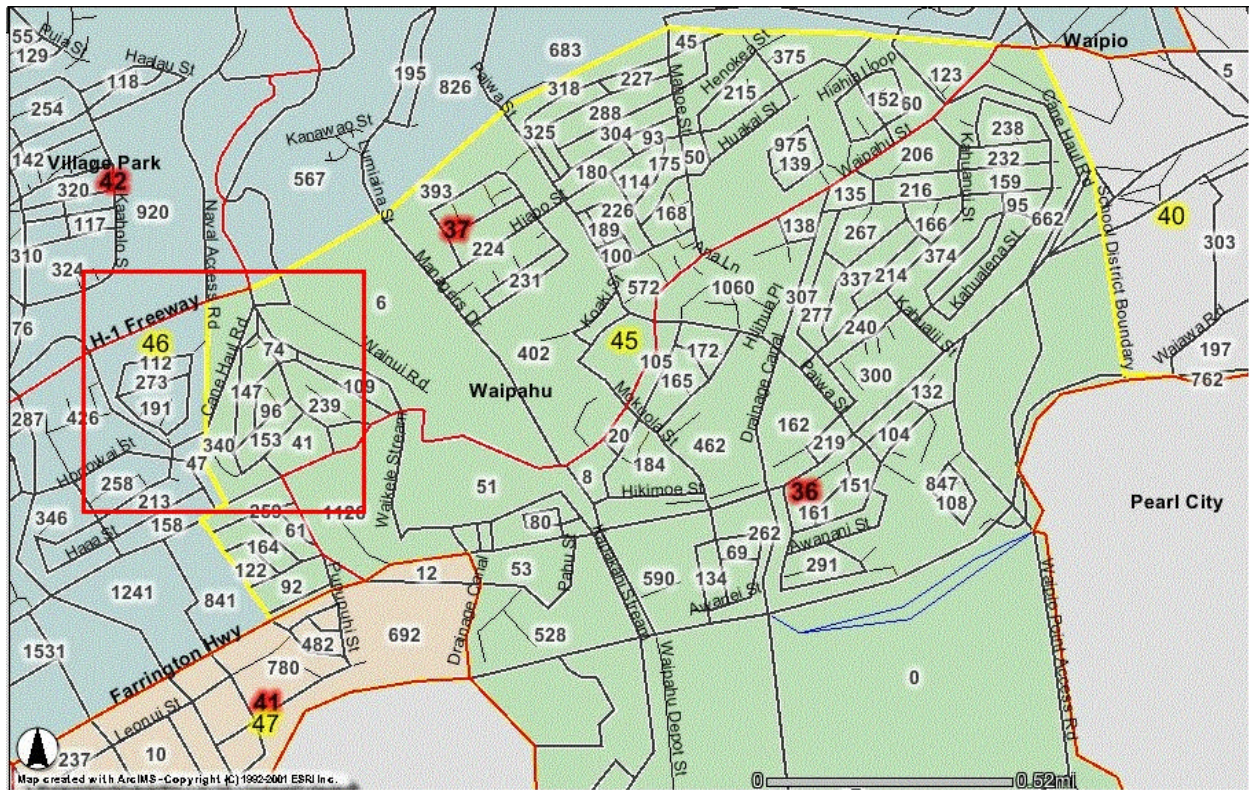
You now can see an even larger area.

Print a map

Click the yellow "Print map" button.

A new window will open that shows a map with a legend and overview map. You can use the Print option in your browser to send this map to a printer on your computer. Close the window by clicking the "X" in the upper right corner of the window when you are done.
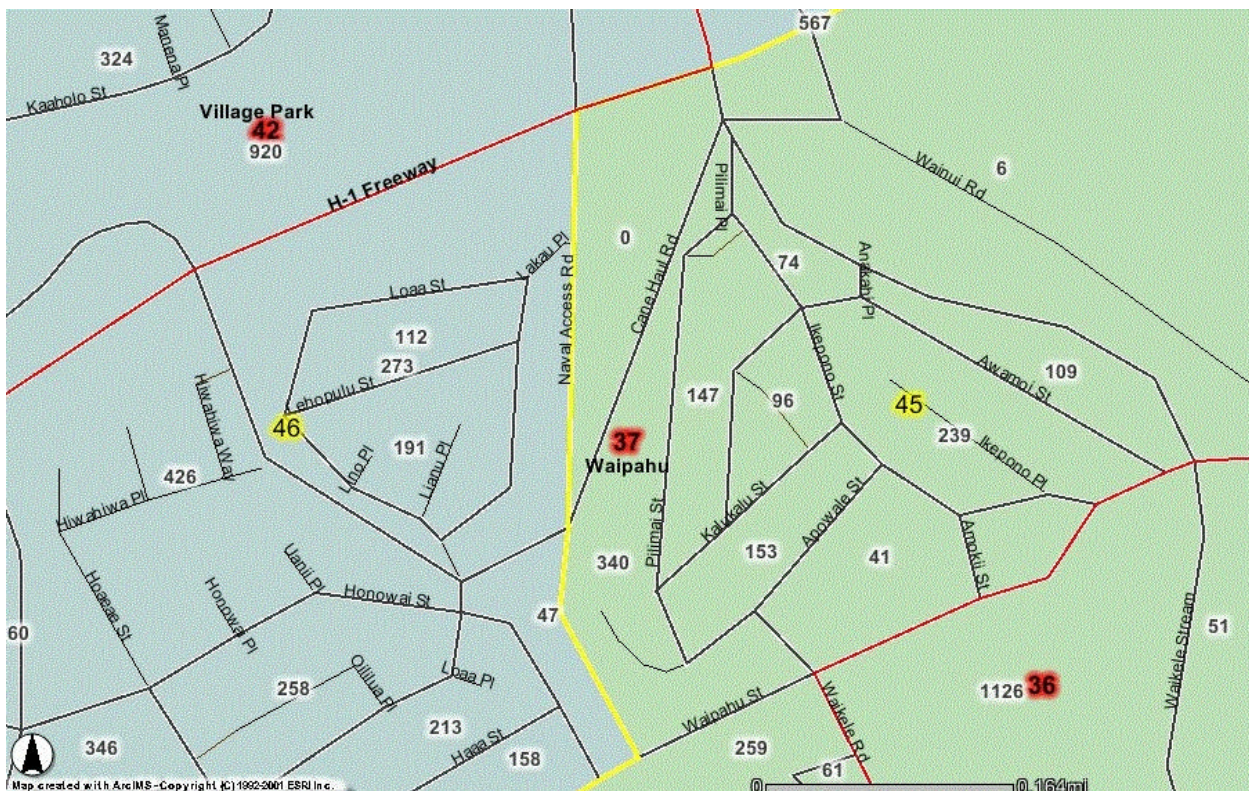
Click on the green "Zoom In" tool button. Then click and drag a box in the Map Frame. A red outline shows the area.

When you let go of the mouse button, the map will redraw showing the area inside the red box.

This concludes the Step-By-Step example. Here are some of the other buttons and what they do:

"Zoom out Statewide" yellow button:

Returns the map to showing all eight major Hawaiian islands (like the opening map).

"Show/hide Federal population base" yellow button

Turns on and off the Federal population data used for Congressional redistricting.

"Go back to last map" yellow button

Goes back to map before the last redraw. You can only go back one map.

"Help" yellow button

Shows a brief description of the Frames and Buttons.

"Pan" green tool button

Click and drag to move the map sideways. The scale doesn't change.

Comments/Questions

If you have any comments or questions about this website, please send an email to the Reapportionment Commission at Reapportionment@exec.state.hi.us .

Technical Information

The Interactive District Mapping website is powered by ArcIMS internet mapping software from Environmental Systems Research Institute, Inc.   Customization has been provided by ESRI Honolulu and CyberCom Hawaii. The site is being hosted by CyberCom.

This Step-By-Step Guide has been written by Royce Jones of ESRI Honolulu.